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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,927	11/16/2000	Takashi Yamamoto	001527	3205

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EXAMINER
RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
1753	3

DATE MAILED: 12/31/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/712,927	YAMAMOTO ET AL.	
	Examiner	Art Unit	
	Christopher D RoDee	1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *1* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 16 November 2000 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information of JP 55—18656, which is not in the English language. This reference has been lined through by the Examiner per MPEP 609.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite because it is unclear in each independent claim what the "developing portion" refers to in the respective formulae. The methods do not recite a particular structure that would correspond to the developing portion and the test does not describe a device or other feature that would have a developing portion. Clarification is requested.

Claim Rejections - 35 USC §§ 102 & 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for th r jections und r this s ction made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-
(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6, 8-14, and 16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sugizaki *et al.* in US Patent 6,150,062.

Sugizaki discloses a process for forming full color images where electrostatic latent images are formed on a latent image support, a toner layer is formed on a developer support facing the electrostatic latent image support, the electrostatic latent image is developed by the toner, and the toner is transferred to a transfer material. The full color image process includes the formation of at least cyan, magenta, and yellow images individually and superimposing the images to form the multicolor image (col. 23, l. 43 – col. 24, l. 12). The toner of the invention contains toner particles and external additives. The additives are ultra microparticles and super-ultra microparticles that reduce aggregation of the toner (col. 16, l. 8-26). Useful super-ultra microparticles include silicon oxide, titanium oxide, and tin oxide, among oth rs (col. 17, l. 1-6).

The black toner in Example 16 is formed from a polyester resin and carbon black. 100 parts of the black toner is mixed with 1.9 parts of 40 nm silica and 1.6 parts of a 20 nm titanic acid reaction product (a titanium oxide compound) as external additives. Example 17 prepares a magenta toner using a magenta flushing pigment and polyester resin mixed with 3.0 parts of 40 nm silica and 2.5 parts of the titanic acid reaction product of Example 16. Example 20 produces a cyan toner in the same manner as Example 17 except it uses a different colorant, 2.9 parts of silica additive, and 2.4 parts of titanic acid reaction product. A yellow toner is presented in Example 21, also produced in the same manner as Example 17 except with a yellow flushing pigment, 2.6 parts of silica, and 2.2 parts of the titanic acid reaction product. Similar process are presented throughout the examples (see Table 5). The color toners of the invention are used in Example 24 in a commercially available electrophotographic copying device (col. 5).

The reference does not specify the aggregation characteristics or the charging characteristics of the toner, but the reference is clearly concerned with avoiding aggregation through the specific formulation of the toner. Because the reference discloses a toner composition having the requisite external additive of the instant claims and specification and has common concerns with those of the instant invention there is sufficient reason to believe that the toner of Sugizaki inherently has the aggregation and charging characteristics of the toner of the instant claims. see *In re Fitzgerald*, 205 USPQ 594. Further, because the additives have the requisite size of particles of the instant invention it appears that they would inherently have the requisite BET surface area.

Claims 1-16 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Moriki *et al.* in US Patent 6,077,636.

Moriki discloses a multicolor imaging process using a toner having inorganic fine powder (A) and non-spherical inorganic fine powder (B) (col. 10, l. 24-32). Powder (A) has a number-average particle length of 1 to 30 nm (col. 10, l. 32-37) and a BET specific surface area of from 50 to 150 m^2/g (col. 11, l. 21-26) while powder (B) has an average particle length of from 30 to 300 nm (col. 12, l. 13-24) and a BET specific surface area of from 20 to 90 m^2/g (col. 13, l. 1-6). Powders A and B are individually added to the toner is an amount of from 0.1 to 3 parts by weight based on 100 parts of the toner (col. 16, l. 12-19). Additional inorganic or organic fine particles may be added to the toner in addition to powders (A) and (B) (col. 16, l. 42-49). Useful fine powder compositions include titanium oxide, aluminum oxide, cerium oxide, and polymers of styrene, methyl methacrylate, and butyl acrylate, among others (col. 16, l. 50-62).

The toner of the invention is used in a process where four imaging stations for each of the colors using the apparatus (Fig. 2). In the electrophotographic process, photosensitive drums **19a**, **19b**, **19c**, and **19d**, each for a specific color (yellow, magenta, cyan, and black), are exposed by latent imaging forming means **23a**, **23b**, **23c**, and **23d**, respectively, to form an electrostatic latent image. Each image is then developed by a respective developing means **17a**, **17b**, **17c**, and **17d**. A yellow image is formed on the transfer belt by transferring the toner from photosensitive drum **19a** by the use of a transfer means **24a** unto a recording medium "S" on belt **25**. Next a magenta toner image is superposed on the yellow toner image, the cyan toner image is superposed on the yellow and magenta images, and a black toner image is formed on the other toner images. The superposed tone images are then transferred and fixed onto a paper receiver (col. 25, l. 27 – col. 26, l. 53).

An exemplified non-magnetic, mono-component cyan developer is formed in Example 1. This composition has 1.5 parts of silica additives with specific surface areas of 110 m^2/g and 50 m^2/g. Examples 3-5, 7, 9, and 10 also produce cyan toners that are pertin nt to th instant

invention. Table 2 summarizes the properties of the cyan toner as well as th yellow, magenta, and black non-magnetic, one-component developers, each of which having external additives of between 1.5 and 4.5 parts by weight. Example 12 (col. 53-55) uses the developers in the manner discussed above where superposed images are formed.

The reference does not specify the aggregation characteristics or the charging characteristics of the toner, but because the reference discloses a toner composition having the requisite BET surface area external additive of the instant claims and specification there is sufficient reason to believe that the toner of Moriki inherently has the aggregation and charging characteristics of the toner of the instant claims. see *In re Fitzgerald*, 205 USPQ 594. Further, because the additives have the of the instant invention it appears that they would inherently have the requisite size of particles.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 703 308-2465. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 703 308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

cdr
December 20, 2001

CHRISTOPHER RODEE
PRIMARY EXAMINER